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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,532	10/23/2001	Jakob Berg	344.797CIP	4170

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EXAMINER	
LERNER, MARTIN	

ART UNIT	PAPER NUMBER
2654	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/047,532	BERG ET AL.	
	Examiner	Art Unit	
	Martin Lerner	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *01 March 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 to 28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 to 15, 18, 20 to 21, and 27 to 28* is/are rejected.

7)☒ Claim(s) *16 to 17, 19, and 22 to 26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/14/03 & 8/14/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On page 5, line 25; page 8, line 4; page 8, line 18; page 8, line 22; page 9, line 22; page 10, line 5; page 10, line 9; page 19, line 3; page 29, line 11; page 29, line 15; page 29, line 20; page 34, line 1; page 34, line 9; page 39, line 25; page 41, line 21; page 43, line 13; page 43, line 19; and page 48, line 19, "devise" should be –device—.

On page 20, line 11, "continuous" should be –continues—.

On page 28, line 15, "ore" should be –or—.

Appropriate correction is required.

Claim Objections

2. Claims 15, 18, 19, and 22 are objected to because of the following informalities:

In claim 15, "devise" should be –device—.

In claim 19, there is a lack of antecedent basis for "the first list".

In claim 22, "forth" should be –fourth—.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1 to 15, 18, 20 to 21, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by *Logan et al.*

Regarding independent claim 1, *Logan et al.* discloses a method of selectively reproducing segments of broadcast programming, comprising:

"storing the media signal received by the receiving device, the media signal containing undesirable signal components" – receiver 12 is depicted as a FM radio receiver that receives broadcast programming signals ("the media signals") transmitted as radio frequency (RF) signals (column 4, line 66 to column 5, line 11: Figure 1); data processor 16 can include a compression buffer ("storing") to receive the data signal (column 6, lines 9 to 24: Figure 1); segments of the broadcast signal are "talked over" (column 3, lines 20 to 29) and/or contain noise ("undesirable signal components") (column 12, line 66 to column 13, line 30);

"selecting a first search key in the media signal" – computer memory 30 provides storage for identification signals, wherein each identification signal can be representative of an identifying characteristic of a known portion of a broadcast signal (column 7, lines 23 to 30: Figure 1); comparator 50 searches the data signal

representative of the broadcast programming signal for the occurrence of one or more of those known segments by identifying an identification signal stored within identification signal memory 64 and representative of the known segment (column 8, lines 39 to 44: Figure 2);

"searching for a second search key that is substantially identical to the first search key" – processor 60 can correlate that downloaded portion with one or more of the identification signals stored within the identification signal memory 64 (column 8, lines 50 to 54: Figure 2);

"comparing first segments of the media signal occurring before and after an occurrence of the first search key with second segments occurring before and after an occurrence of the second search key" – attribute signal provides a preceding signal length and a succeeding signal length, each of which respectively describes the period of time that the known segment runs respective to the portion of the segment that is associated with the identification signal; correlator 62, upon detecting a match between the data signal in buffer processor 60 and one of the identification signals, can delimit a beginning and end for the segment associated with the respective identification signal (column 9, lines 6 to 26: Figure 2); the playback controller can include a search mechanism that detects marker signals between segments for searching between the stored segments (column 10, lines 35 to 38);

"identifying first common segments between the first segments and the second segments" – comparator can compare the introductory signal to the segment to generate a deviation between the broadcast programming signal and the introduction

signal; this allows the apparatus to determine if the initial portion of the segment has been "talked over" by the announcer (column 9, lines 26 to 40); correlation of plural recorded program segments can be performed to combine the plural signals (column 13, lines 15 to 30).

Regarding claim 2, *Logan et al.* discloses combining record segments for two recordings, three recordings, and four recordings to reduce the signal-to-noise ratio (column 13, lines 1 to 15); implicitly, this involves comparing segments between at least three record segments.

Regarding claim 3, *Logan et al.* discloses recording and combining a particular program segment several times; by correlation of the plural recorded program segments, the signal-to-noise processor can combine ("linking") the plural signals to generate a single program segment recording ("a media signal segment") having improved audio fidelity (column 13, lines 1 to 30).

Regarding claims 4 and 5, *Logan et al.* discloses a user can download and search to identify songs of interest (column 7, lines 38 to 46); user identification involves "manually activating the device by a first activation member"; alternatively, agent software modules search through sources and identify identification signals that are of interest to a user (column 7, lines 46 to 55); an agent software module performs the task of "automatically activating the device" in response to a software program.

Regarding claim 6, *Logan et al.* discloses storing identification signals in an identification signal memory 64, and searching identification signals stored in identification signal memory 64 (column 8, lines 35 to 44: Figure 2).

Regarding claim 7, *Logan et al.* discloses a comparator can compare the introduction signal to the segment to generate a deviation signal ("a similarity factor") which represents the differences between the broadcast programming signal and the introduction signal (column 9, lines 31 to 34).

Regarding claim 8, *Logan et al.* discloses digital processor 14 selectively controls a digital sample rate for digitizing signals; by selectively controlling the sample rate of the output signal, the digital processor 14 allows the data processor 16 to reduce the file size with an associated loss of fidelity (column 5, lines 44 to 56: Figure 1); implicitly, comparing digital samples that are sampled at a lower sampling rate has the effect of comparing only every nth sample, where n is greater than 1.

Regarding claim 9, *Logan et al.* discloses that each recording can be made with a radio signal of approximately equal strength, or can be so adjusted by the signal processor (column 13, lines 9 to 14); adjustment of a strength of a signal so that all the signals are of equal strength is equivalent to "normalizing signal gain".

Regarding claim 10, *Logan et al.* discloses that a playback controller can provide segments as a function of an attribute signal; an attribute of the signal can be representative of a characteristic of the segment including its length (column 4, lines 13 to 19); correlation of plural recorded program segments can combine the plural signals to generate a single program segment recording (column 13, lines 26 to 30); thus, signals can be selected and combined based upon signal length ("a longest signal segment").

Regarding claims 11 and 12, *Logan et al.* discloses the signal-to-noise processor collects and records a particular program segment several times (column 12, line 66 to column 13, line 15); implicitly, there is a counter or index representing the number of times a particular program segment is recorded when there are a plurality of copies of the segment.

Regarding claim 13, *Logan et al.* discloses the system could identify attributes for particular segments, such as one or more albums that have a recording of this segment (column 13, lines 30 to 38); attributes identifying the number of times a particular segment is recorded on a plurality of albums is equivalent to "counting a number of times a second search key is substantially identical to the first search key."

Regarding claim 14, *Logan et al.* discloses segment memory 52 stores segments to provide a database of selected segments (column 9, lines 47 to 49; column 10, lines 1 to 4); implicitly, a segment memory 52 stores segments in a form of a list of segments.

Regarding claims 15 and 18, *Logan et al.* discloses recording and combining a particular program segment several times; by correlation of the plural recorded program segments, the signal-to-noise processor can combine the plural signals to generate a single program segment recording having improved audio fidelity (column 13, lines 1 to 30); segment memory 52 stores segments to provide a database of selected segments (column 9, lines 47 to 49; column 10, lines 1 to 4); implicitly, a segment memory 52 stores segments in a form of a list of segments, so common segments identified by signal-to-noise processor are also stored in a list; in one embodiment, a signal processor 78 includes a voice recognition process, identifies those portions of the data

signal that are representative of speech signals, and deletes these segments from the data signal; alternatively, voice recognition can identify and save select attributes; thus, these selected attributes could be deleted speech signals stored as a list (column 11, line 65 to column 12, line 14).

Regarding claim 20, *Logan et al.* discloses a fade control to modulate the amplitude of a respective data signal to provide a fade-in effect that allows the detected musical selection to start from a reduced volume and grow louder after the "talked over" portion (column 9, lines 40 to 46).

Regarding claim 21, *Logan et al.* discloses recording and combining a particular program segment several times; by correlation of the plural recorded program segments, the signal-to-noise processor can combine the plural signals to generate a single program segment recording having improved audio fidelity (column 13, lines 1 to 30); a comparator can compare the introduction signal to the segment to a generate a deviation signal ("a similarity factor") which represents the differences between the broadcast programming signal and the introduction signal (column 9, lines 31 to 34); thus, there are a plurality of similarity factors between plural signals when they are combined to generate a single program segment.

Regarding claim 27, *Logan et al.* discloses combining record segments for two recordings, three recordings, and four recordings to reduce the signal-to-noise ratio (column 13, lines 1 to 15); implicitly, this involves identifying at least four recordings that are substantially identical by at least four identification signals.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Logan et al.* in view of *Montlick et al.*

Logan et al. discloses adjustment of a strength of a signal so that all the signals are of equal strength (column 13, lines 9 to 14), which is equivalent to normalizing signal gain, but omits a specific gain normalization technique where a normalization factor is derived from a sum of absolute values of samples. However, it is known to normalize a signal according to a summation of signal magnitudes or energy values. Specifically, *Montlick et al.* teaches amplitude normalization, where an input converter block integrates ("a sum") the absolute value (i.e. magnitude) over a particular number of samples in a fixed time interval. (Column 7, Lines 29 to 55) It would have been obvious to one having ordinary skill in the art to utilize the amplitude normalization technique of *Montlick et al.* in a method of selectively reproducing segments of broadcast programming of *Logan et al.* because this is a well known method to adaptively determine a normalized gain within a predetermined time interval.

Allowable Subject Matter

7. Claims 16, 17, 19, and 22 to 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

Chiba, Meredith et al., Ellozy et al., Heckerman et al., and Fasciano disclose related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (703) 308-9064. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML
3/3/05

Martin Lerner
Examiner
Group Art Unit 2654